

ABSTRACT

A method of rapidly assembling the rotor (22) of an external-rotor motor (20) onto a bearing support tube (70) and in a predetermined axial position relative to the latter, which rotor (22) comprises a rotor cup (24) and a rotor shaft (28), includes the following steps:

a) beginning at the rotor cup (24), pre-mounting, onto the rotor shaft (28), a compression spring (48), a retaining washer (50), and a bearing arrangement having a plurality of rolling bearings (52, 60), the inner rings (56, 64) of the rolling bearings being slidably displaceable on the rotor shaft (28) within a predetermined region;

b) pressing the rotor (24), with the elements mounted thereon, into the bearing support tube (70) by means of a pressing-in force (K), the compression spring (48) being compressed so that the rotor cup presses the retaining washer (50) into the bearing support tube (70); and

c) removing the pressing-in force (K) so that the rotor shaft (28) is displaced by means of the compression spring (48) within the inner rings (56, 64) of the bearings (52, 60) in such a way that the rotor (24) assumes the predetermined axial position relative to the bearing support tube (70). The method is advantageous because the steps are simple enough to be automated, and the structure is advantageous because the closed bearing tube prevents dirt and contaminants from getting into the bearings, thereby extending service life.